

Amendments to the Drawings

Please find enclosed amended Figures 1, 4 and 5 marked "Replacement Sheets".

REMARKS/ARGUMENTS

The Applicant thanks the Examiner for the Office Action dated September 21, 2006.

Drawings

Figures 1, 4 and 5 have been amended by replacement of reference numeral "8" with "80". Corresponding amendments have been made to pages 14 and 15 of the description.

Claim Objections

The typographical error in claim 25 has been corrected.

Claim Rejections – 35 USC § 132(a)

Claims 1, 13 and 25 have been amended to specify that the nozzle chambers are mounted on a passivation layer of a silicon substrate. Basis for this amendment can be found at page 11, line 29; page 12, line 7 and page 13, line 6 of US Application No. 10/302,274, which is explicitly incorporated into the present application by reference.

The description has been amended at page 17, 2nd paragraph to reflect the subject-matter incorporated from page 11, line 29 and page 12, lines 4-7 of the cross-referenced US Application No. 10/302,274.

It is submitted that no new matter has been introduced into the present application by virtue of these amendments to the description and claims. Cross-referenced US Application No. 10/302,274 provides basis for all amendments.

Claim Rejections – 35 USC § 102

The Applicant maintains that the subject-matter of claims 1, 13 and 25 is not anticipated by the disclosure of Torpey. Torpey describes a typical low-resolution printhead having components (*e.g.* nozzle unit 18, chamber unit 16, reservoir unit 19, carrier bar 32) all formed from either plastics or ceramics.

By contrast, the printhead of the present invention is an inkjet printhead having a ceramic nozzle chamber mounted on a passivation layer of a silicon substrate.

Claim Rejections – 35 USC § 103

It is further submitted that the present invention is not obvious in view of Torpey either. Torpey merely represents traditional prior art for low-resolution piezoelectric printheads. Torpey teaches construction of such printheads from moldable plastics or machinable ceramics.

However, the present invention relates to MEMS printheads, which are formed from photolithographic etching/depositions steps performed on a silicon wafer. Hitherto, it had not been suggested in the prior art to construct a printhead by forming ceramic nozzle chambers on a passivation layer of a silicon substrate. Moreover, Torpey does not provide this suggestion to the person skilled in the art.

Usually, MEMS printheads have nozzle chambers defined within the silicon wafer substrate. In the present invention the nozzle chambers are mounted on a passivation layer of the silicon substrate. There is nothing in Torpey teaching the skilled person to make this modification to MEMS inkjet printheads. Accordingly, it is submitted that the present invention is not obvious in view of Torpey.

It is respectfully submitted that all of the Examiner's objections have been successfully traversed. Accordingly, it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

Applicant:



KIA SILVERBROOK

C/o: Silverbrook Research Pty Ltd
393 Darling Street
Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Facsimile: +61 2 9555 7762